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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

NGUYEN, BRIAN D

ART UNIT	PAPER NUMBER
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2661

DATE MAILED: 11/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/606,025

Applicant(s)

DAMMANN ET AL.

Examiner

Brian D Nguyen

Art Unit

2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on the application filed 6/29/00.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. Page 17, line 9, "TCA 120" should change to ---TCA 160---.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1, 9, 17, and 25 are rejected under 35 U.S.C. 102(e) as being anticipated by Brown et al (6,046,817).

Regarding claims 1, 9, 17, Brown discloses a buffer arrangement comprising: a predetermined plurality of ports; and buffer resources of a predetermined size (see figure 2; col. 3, lines 27-40); wherein any number of the plurality of ports may be arranged for use for data-handling, and wherein the buffer resources are configurable to have a sub-size of the buffer

Art Unit: 2661

resources assigned to each port of the plurality of ports in a first configuration where all of the plurality of ports are arranged for use for data handling (see col. 24, lines 20-30), and wherein the buffer resources are reconfigurable to have a differing sub-size of the buffer resources assigned to at least one used port of the plurality of ports in a second configuration when a lesser number than the plurality of ports are arranged for use for data handling (see figure 13, steps 2-4; col. 4, lines 18-27).

Regarding claim 25, claim 25 is method claims that have substantially all the limitation of the respective apparatus claims 1. Therefore, it is subject to the same rejection.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 3-5, 11-13, 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al (6,046,817).

Regarding claims 3, 11, 19, Brown discloses each port initially allocating some memory element to create a minimum configuration of at least one buffer and when a port is active, more buffers will be assigned to that port (see figure 13; col. 24, lines 27-30). Brown does not specifically disclose reassign buffers of unused port to a used port. However, it is obvious that when the whole buffer resources equally assign to the ports then the reconfiguration will reassign buffers from unused ports to used ports.

Art Unit: 2661

Regarding claims 4, 12, 20, Brown discloses each port initially allocating some memory element to create a minimum configuration of at least one buffer (see figure 13; col. 24, lines 27-30). Brown does not specifically disclose buffer resources are configurable to have a substantially equal sub-size of the buffer resources assigned to each port of the plurality of ports. However, it is obvious that when all buffers are assigned to the ports (no free), then each port will be assigned equal sub-size of the buffer resources.

Regarding claims 5, 13, 21, Brown does not specifically disclose the reconfiguration assign equal sub-size of resources to each used port. However, assigning equal sub-size to each used port or assigning buffer to each used port based on its traffic is a matter of choice because assigning equal sub-size to each used port will make the reconfiguration simple and assigning buffer to each used port based on its traffic will use the memory more effectively.

6. Claims 2, 10, 18, 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brown et al (6,046,817) in view of Call et al (4,158,235).

Regarding claims 2, 10, 18, Brown discloses the buffer resources assigned to the ports can be reconfigured. Brown does not explicitly disclose a concatenation arrangement is used to re-configure. However, it is obvious that buffers assigned to the ports must be connected to each other in order to re-configure. Call explicitly discloses a concatenation arrangement in which port buffers are connected to one another (see 21a and 21b of figure 2). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to connect the port buffers as taught by Call in the system of Brown so that buffers can be shared between ports in order to improve memory efficiency.

Art Unit: 2661

Regarding claim 26, claim 26 is method claims that have substantially all the limitation of the respective apparatus claims 2. Therefore, it is subject to the same rejection.

7. Claims 6-8, 14-16, 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Teitenberg et al (6,421,769) in view of Brown et al (6,046,817).

Regarding claims 6-8, 14-16, 22-24, Teitenberg discloses a multi-port switch complying with NGIO (see figure 1; col. 1, lines 24-40; col. 2, lines 18-32). Teitenberg does not specifically disclose the port buffers are re-configurable. However, Brown discloses a buffer arrangement in which port buffers are re-configurable (see figures 2 and 13; col. 3, lines 27-40; col. 4, lines 18-27; col. 24, lines 20-30). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to re-configuring the buffers as taught by Brown in the system of Teitenberg so that memory can be shared between port in order to effectively use of available buffer.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ugajin et al (5,046,039), Chang et al (5,289,470), Chiou et al (6,577,625), Lane (6,075,380) are all cited to show a buffer arrangement in which buffer size for a used port can be reconfigured which are considered pertinent to the claimed invention.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian D Nguyen whose telephone number is (703) 305-5133. The examiner can normally be reached on 7:30-6:00 Monday-Thursday.

Art Unit: 2661

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doug Olms can be reached on (703) 305-4703. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 306-0377.

A handwritten signature in black ink, appearing to read 'Brian Nguyen', with a stylized, flowing script.

Brian Nguyen
11/4/2003